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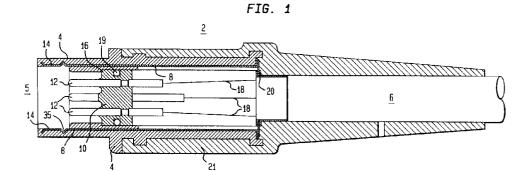
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(54) Fully insulated, fully shielded electrical connector arrangment

(57)A shielded electrical connector (2) having an elongated annular housing (4) composed of an electrically insulative material molded so as to form an elongated structure for the connector and at least a portion of a grasp for a user of said connector. The housing defines outside and inside surfaces and front and rear ends for said connector. A contact holding portion (10) composed of an electrically insulative material is positioned inside said annular housing and includes a plurality of electrically conductive signal contacts (12) positioned therein so as to be completely surrounded by, yet spaced a distance away from, the inside surface of the housing (4). An elongated annular electrically conductive shield (8) having inner and outer sides is insert molded with the housing so as to be disposed between its outside and inside surfaces. The elongated shield (8) has a proximal end adapted for being coupled to a common shield associated with the plurality of signal conductors (18) and a distal end extending to and encapsulated by the front end (5) of the housing, yet the front end of the housing leaving an un-encapsulated portion of the inside surface of the shield which is spaced a predetermined distance away from the front end of the housing. The un-encapsulated portion of the inside surface of the shield is adapted for making electrical contact with a shield of a mating multi-conductor connector so as to provide an effectively continuous conductive shield which completely surrounds the electrically conductive signal contacts.



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EUROPEAN SEARCH REPORT

Application Number EP 95 10 8019

Category	Citation of document with indica of relevant passag		Relevant to claim	CLASSIFICATION OF THI APPLICATION (Int.Cl.6)
A	EP-A-0 118 168 (AMP II September 1984	NCORPORATED) 12	1-3, 10-12, 14-17	H01R23/00 H01R13/658 H01R23/68
	* abstract; figure 3 *		14 1/	11011(23) 00
A	November 1989	A-O 340 327 (HOSIDEN ELECTRONICS) 8 ember 1989 olumn 2, line 30 - column 3, line 8 *		
	* column 4, line 9-53			
A	EP-A-0 316 710 (PREH-	WERKE) 24 May 1989	1-3, 10-12, 15-17	
	* abstract; figure *			
A	EP-A-0 207 322 (HOSIDEN ELECTRONICS CO, LTD.) 7 January 1987 10-12, 15-17		10-12,	
	* abstract; figure 10	*		TECHNICAL FIELDS SEARCHED (Int.Cl.6)
				H01R
	The present search report has been			_
THE HAGUE		Date of completion of the search 18 January 1996	Wae	Examiner ern, G
X : par Y : par doc	CATEGORY OF CITED DOCUMENTS ticularly relevant if taken alone ticularly relevant if combined with another ument of the same category hnological background	E : earlier patent doc after the filing da D : document cited in L : document cited fo	cument, but pub ite in the application or other reasons	lished on, or n